Is artificial intelligence a new technology?

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There is no doubt and no doubt artificial intelligence is a new technology. More precisely, I would call artificial intelligence after all a human assistant. Moreover, this follows from the development of fundamental science. Of course, an example can be given when a digital presenter is broadcasting, as on the South Korean TV channel MBN (the real TV presenter Kim JooHa became the prototype of the image) [1]. But, nevertheless, the main function of artificial intelligence in the future is not similar technical roles, but the development of science. Fundamental Science. Literally. And this is inevitable. In fact, we will now observe (and we will be the creators) of the emergence of the scientific matrix. A complete matrix. Consider this.

For a long time, when developing electronic circuits, no one solders them, and after that does not check their performance. For this, there are special software packages that make it possible to develop an electronic circuit, test it, print documentation, and then start the production process. This is possible because the physical laws that govern the operation of the circuit are well known and work precisely. Therefore, there is no need for a "material" assembly, virtual assembly is fine. A similar process of "virtualization" will take place in science. For example, the amount of all possible organic compounds is theoretically incalculable [2]. That is, for the numbering of all organic compounds, we will not have enough natural numbers... How then can we synthesize them? At least a trillion.

At the moment, approximately 100 million organic substances are known. It is quite obvious that it is impossible to synthesize 1 trillion or 100 trillion substances without artificial intelligence, and in time it will be a very long process (even if it is done by a robot). But, the mass of raw materials for 100 trillion substances requires a huge amount. Moreover, how much these substances will be "interesting" for science is still a question. In this case, you can go through the virtualization of scientific research. What does it mean? Suppose, in theoretical chemistry, a scientific work will still be written that completely describes the chemical bond (that's what fundamental science is needed for!). Then, in principle, it will be possible to make a complete reliable calculation of the properties of the molecule based on its structural formula. That is, according to the formula, we can fully describe the properties of a particular substance. Note that in this case the calculated properties will not differ in any way from the experimental ones (remember the electronic circuits). That is, for us the question of principle will no longer be: whether a molecule is synthesized or calculated theoretically. A theoretical calculation will already be equivalent to the synthesis of a substance, just like the calculation of electronic circuits in virtual reality is now no different from soldering "manually" in the real world. Therefore, it is quite logical to entrust this work on "virtual synthesis" to artificial intelligence (the theoretical calculation will be carried out by AI). Moreover, AI can be given the task of calculating what is equivalent to "virtually synthesize", for example, 100 trillion substances. For the convenience of human use of this knowledge, it would be logical to create a virtual laboratory in which the AI, that is, a virtual synthetic chemist, will synthesize new substances. After such a virtual synthesis, there will be normal work in a virtual laboratory for the purification and identification of substances.

This interface, in fact, chemical virtual reality, will make it possible to create a convenient library of substances. The work of such a virtual chemist (development of synthesis, description, synthesis itself, etc.) will always be online, in the corresponding virtual reality (a real synthetic chemist can always take part in this work). Like the virtual presenter, the virtual chemist is also better visualized as an ordinary person. It is quite obvious that AI will be the author of scientific papers on the data obtained. Moreover, writing works for him will be the easiest thing. In fact, a virtual chemist becomes an ordinary researcher who will be engaged in science according to a strictly specified algorithm. With the development of AI, the number of substances, synthesis methods, etc., virtual reality itself will increase: first, the number of substances will increase, then laboratories, then the number of virtual research institutes, then megacities, etc. will increase. And at a certain stage we get a typical chemical matrix. In fact, this is inevitable, since the number of substances in organic chemistry is unlimited and people will never be able to synthesize and describe them by hand. Moreover, it will be impossible to do this at any level of human development. Therefore, the transition to chemical virtual reality is inevitable and strictly logical in connection with the development of chemistry.

Note that it is difficult to even imagine the possibilities of chemistry and medicine, when mankind will possess a library of organic substances of 100 or 900 trillion. It is highly probable that among these "virtual substances" there will be effective antiviral substances, which in one or two doses can destroy any virus in the human body. And this means that then viral epidemics will no longer be terrible for humanity. Let us recall that at the moment in pharmacy no more than 100 thousand individual organic substances are used. Now imagine that our medical library can use 1 trillion substances... Can you imagine the level of such medicine? Me not... This example is a clear demonstration of why, over time, virtualization of organic chemistry will inevitably occur, and the synthesis of substances will move to virtual laboratories. Now this sounds rather unusual for us, but it has always been so: everything new is first perceived with some caution. Let us recall, for example, the words of Justus Liebig (1803 - 1873), who categorically stated in 1838 that the synthesis of organic substances can be carried out by chemists in the laboratory, and not only by living organisms.

"The production of all organic substances no longer belongs just to living organisms. It must be seen as not only probable, but as certain, that we shall be able to produce them in our laboratories. Sugar, salicin, and morphine will be artificially produced. Of course, we do not yet know how to do this, because we do not yet know the precursors from which these compounds arise, but we shall come to know them" [3]. For us, the words of the great organic chemist now seem so obvious, but then, even well-known chemists strongly doubted this. It is the same with the synthesis of substances in virtual reality: now it seems fantastic, but this is how it will be... This is inevitable!

A similar scientific matrix can be built in any field of science, you only need the corresponding exact laws of nature, which will eventually be discovered. Therefore, the development of fundamental science will inevitably lead to an ever-increasing virtualization of science itself and society as a whole. And it is obvious that at a certain stage of human development, virtual reality will become more important, since the amount of scientific data obtained in the scientific matrix will be greater. There will be more laboratories, more opportunities for implementation, more opportunities for career growth... The real world and real science may well become secondary, and have only historical interest. It is also obvious that if humanity possesses the technology of transition to virtual reality, then at a certain stage all of humanity can move from the real world to the virtual... That is, we quite consciously want to live in the matrix, but we will manage it. There is nothing surprising here, because no one is surprised by the fact that now we live in big cities, and not in the open-air jungle. We always want to live in convenience and comfort, namely the matrix can make our life as comfortable as possible. For future people, it will be their natural home, and our real world will be perceived as a wild jungle. Perhaps such a transition of civilization to virtual reality is the explanation of the Fermi paradox, since at a certain level of development, civilization simply “disappears” from our Universe, and goes into a more interesting virtual Universe...

1. https://www.youtube.com/watch?v=k8X_Em-NQn0
2. The Amount of Organic Compounds. https://vixra.org/pdf/1910.0224v1.pdf
3. Justus von Liebig – Wikipedia.
4. Quora: Is artificial intelligence a new technology? https://qr.ae/pNiiOJ